IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF PENNSYLVANIA

THOMAS BUZZERD and KRISTI COURTNEY, Plaintiffs	:	CIVIL ACTION NO. 3:CV-06-0981
v.	:	(VANASKIE, District Judge)
FLAGSHIP CARWASH OF PORT ST. LUCIE, INC.; U-HAUL CO. OF FLORIDA; and U-HAUL CO. OF ARIZONA, Defendants	:	

MEMORANDUM

This is a personal injury action removed to this Court based upon diversity of citizenship jurisdiction. See 28 U.S.C. § 1332 and 28 U.S.C. § 1441.[1] Plaintiffs, Thomas Buzzerd and Kristi Courtney, claim to have suffered permanent cognitive, behavioral and personality problems as a result of carbon monoxide (CO) poisoning while driving a U-Haul truck from Florida to Pennsylvania in November of 2004. Plaintiffs assert that vehicle defects attributable to negligent maintenance allowed levels of carbon monoxide to accumulate in the truck's passenger compartment during their 30-hour trip. Presently

[1] For the convenience of the reader of this Memorandum opinion in electronic format, hyperlinks to the Court's record and to authority cited herein have been inserted. The Court accepts no responsibility for, and does not endorse, any product, organization, or content at any hyperlinked site, or at any site to which that site might be linked. The Court accepts no responsibility for the availability or functionality of any hyperlink. Thus, the fact that a hyperlink ceases to work or directs the user to some other site does not affect the opinion of the Court.

before the Court is the remaining Defendants' motions to preclude Plaintiffs' experts from offering opinion testimony to the effect that during their trip Plaintiffs were exposed to harmful levels of carbon monoxide sufficient to cause permanent brain injury. Defendants contend, inter alia, that the experts' opinions are not grounded in reliable scientific methodology. For the reasons that follow, Defendants' motions will be granted.

I. BACKGROUND

Plaintiffs leased a U-Haul truck from Defendant Flagship Carwash of Port St. Lucie, Inc. in November of 2004. While driving the truck from Florida to Pennsylvania on November 28 and 29, 2004, plaintiffs experienced headaches, nausea, disorientation, and confusion. Mr. Buzzerd had hallucinations of deer in the roadway near the end of the trip, which was completed around 9:00 p.m. on November 29th.

The service engine light was illuminated for the entire 30-hour duration of the non-stop trip. Exhaust fumes were visible, and Plaintiffs claim that there was a leak in the vehicle's emissions system. Photographs of the vehicle's exhaust fumes were taken.

Upon arriving at their destination in Pennsylvania on November 29, 2004, Plaintiffs went to sleep. Mr. Buzzerd went to work the next day, and Ms. Courtney stayed home. At approximately 5:30 p.m. on November 30, 2004, after unpacking the truck, Plaintiffs went to the emergency room at the Tyler Memorial Hospital, complaining of nausea, headaches, and flu-like symptoms that they attributed to their exposure to exhaust fumes during their

journey. An emergency room physician made a notation of "carbon monoxide exposure" as his diagnostic impression. No objective testing, however, confirmed carbon monoxide poisoning. Carbon monoxide exhale breath tests administered at the Tyler Memorial Hospital revealed carbon monoxide levels of 1 and 2 parts per million ("ppm") for Mr. Buzzerd and Ms. Courtney, respectively, well within normal limits. No carboxyhemoglobin test results appeared in the hospital records, even though this test was ordered.

Evidently, Plaintiffs' acute symptoms abated with the administration of oxygen. Plaintiffs were prescribed Tylenol and told to return to the emergency room if their symptoms recurred.

Plaintiffs noticed cognitive and behavioral changes after their Florida trip. On November 23, 2005, almost one year after the onset of acute symptoms, Plaintiffs were examined by Dr. William Jeffreys upon referral from Dr. Lisa Robertson. Dr. Jeffreys, a neurologist, found that reports of magnetic resonance imaging ("MRI"), CT scans, and EEG tests for both Plaintiffs were within normal limits.[2]

Dr. Jeffreys referred both Plaintiffs for a neuropsychological evaluation by Michael S. Driscoll, Ph.D. Plaintiffs were seen by Dr. Driscoll in February of 2006 and November of 2007. Dr. Driscoll found that Mr. Buzzerd had a cognitive disorder and adjustment reaction

[2]Dr. Jeffreys acknowledged that these objective exams can be used as diagnostic tools for determining carbon monoxide exposure.

involving depressed mood, which Dr. Driscoll attributed to carbon monoxide exposure during the trip from Florida. As to Ms. Courtney, although finding that neuropsychological testing was essentially normal, Dr. Driscoll concluded that she suffered cognitive impairment due to carbon monoxide exposure based upon Ms. Courtney's report of the sequence of symptoms.

Dr. Jeffreys saw Plaintiffs for the second and last time in November of 2007, about two (2) years after he first examined them.[3] Based upon Ms. Courtney's reports, Dr. Jeffreys found that she had suffered personality and behavior problems associated with her exposure to carbon monoxide. As to Mr. Buzzerd, Dr. Jeffreys diagnosed encephalopathy secondary to carbon monoxide exposure with residual cognitive and language impairments.[4] (Jeffreys Dep., at 23.)

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[3]Plaintiffs had re-located to North Carolina. There is no evidence in the record of healthcare treatment while Plaintiffs were in North Carolina.

[4] According to the National Institute of Neurological Disorders and Strokes, encephalopathy is:

> a term for any diffuse disease of the brain that alters brain function or structure. Encephalopathy may be caused by infectious agent (bacteria, virus, or prion), metabolic or mitochondrial dysfunction, brain tumor or increased pressure in the skull, prolonged exposure to toxic elements (including solvents, drugs, radiation, paints, industrial chemicals, and certain metals), chronic progressive trauma, poor nutrition, or lack of oxygen or blood flow to the brain. The hallmark of encephalopathy is an altered mental state. Depending on the type and severity of encephalopathy, common neurological

Drs. Jeffreys and Driscoll relied upon the emergency room records and the temporal connection between Plaintiffs' reports of illness and their exposure to vehicle fumes on their drive from Florida in November of 2004 to attribute carbon monoxide as the cause of their alleged brain injuries. Neither doctor, of course, could say that Plaintiffs inhaled harmful levels of carbon monoxide during the trip, especially in light of the absence of carboxyhemoglobin testing.[5]

To show that Plaintiffs were exposed to elevated levels of carbon monoxide during their trip from Florida, Plaintiffs retained Joseph Cocciardi, an industrial hygienist, to perform carbon monoxide and emissions testing on the U-Haul truck in question. Mr. Cocciardi

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> symptoms are progressive loss of memory and cognitive ability, subtle personality changes, inability to concentrate, lethargy, and progressive loss of consciousness. Blood tests, spinal fluid examination, imaging studies, electroencephalograms, and similar diagnostic studies may be used to differentiate the various causes of encephalopathy.

National Institute of Neurological Disorders and Strokes, http://www.ninds.nih.gov/disorders/encephalopathy/encephalopathy.htm (last visited Oct. 28, 2009). In this case, Plaintiffs have not presented evidence of any diagnostic study that would support a determination that carbon monoxide poisoning is the cause of encephalopathy.

[5]In this regard, Plaintiffs, in responding to Defendants' Statement of Material Facts in support of Defendants' summary judgment motion, admitted that carboxyhemoglobin levels increase based on the degree and duration of exposure. (Def's Statement of Material Facts, Dkt. 63, ¶ 17, Plfs' Response, Dkt. 87, ¶ 17.) Plaintiffs also admitted that mild carbon monoxide exposure is not associated with neurological problems. (Id. at ¶ 21.) Carboxyhemoglobin levels would have been very illuminating in terms of the degree of Plaintiffs' alleged exposure to carbon monoxide.

designed a test regimen to determine "exposure quantification" and to predict carbon monoxide levels to which Plaintiffs were exposed during their trip. Over the course of more than 28 hours of stationary testing conducted by Mr. Cocciardi, the carbon monoxide level never exceeded 1.8 ppm, well below the 9 ppm National Ambient Air Quality Standard published by the U.S. Environmental Protection Agency. The highest carbon monoxide reading during one of the three 45-minute road tests performed by Mr. Cocciardi was in the range of 5 to 6 ppm, but lasted for no more then one minute, with all other readings between 0 to 1 ppm. Mr. Cocciardi also analyzed the vehicle emissions at the exhaust system outlet, which he found to be at levels well below the emission standard for the type of vehicle in question.

Plaintiffs also retained Mr. George Meinschein, a mechanical engineer and former automobile mechanic, to inspect the vehicle for possible pathways for vehicle emissions to enter the truck's passenger compartment. He observed several possible pathways attributable to negligent maintenance of the truck, but did not identify any particular pathway by which emissions would have entered the vehicle's cab. Mr. Meinschein also opined that carbon monoxide emissions would have been greater during the trip from Florida than the levels measured by Mr. Cocciardi, but did not articulate any basis for estimating the carbon monoxide levels during the trip.

Defendants contend that the opinions of Plaintiffs' experts on probable exposure to

harmful levels of carbon monoxide during the 2004 trip from Florida do not meet the standard of admissibility articulated in Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993), and codified in Federal Rule of Evidence 702. In particular, Defendants assail the absence of reliable scientific methodology underpinning the experts' opinions that carbon monoxide accumulated in the passenger compartment at levels that caused permanent cognitive, behavioral, and personality impairments.

II. DISCUSSION

A. Standard of Review

The admissibility of expert witness opinions is governed by Federal Rule of Evidence 702, which provides:

> If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Under Rule 702, the trial judge serves as a "gatekeeper" to insure that expert opinion testimony is both relevant and reliable. See Daubert, 509 U.S. at 589. Where, as here, a party challenges the admissibility of a proffered expert opinion, the trial court must inquire into: (1) the qualifications of the expert, (2) the reliability of the process or technique the expert used in formulating the opinion, and (3) the "fit" between the opinion and the facts in

dispute. See In Re Paoli R.R. Yard PCB Litigation, 35 F.3d 717, 741-47 (3d Cir. 1994) ("Paoli II").

As explained in Jaasma v. Shell Oil Co., 412 F.3d 501, 513 (3d Cir. 2005), a qualified expert's "testimony (1) must be based on sufficient facts and data; (2) must be the product of a reliable methodology; and (3) must demonstrate a relevant connection between that methodology and the facts of the case." In this regard, scientific or technical knowledge "must be supported by appropriate validation – i.e., 'good grounds' based on what is known." Daubert, 509 U.S. at 592. "Put differently, an expert opinion must be based on reliable methodology and must reliably flow from that methodology and the facts at issue – but it need not be so persuasive as to meet a party's burden of proof or even necessarily its burden of production." Heller v. Shaw Industries, Inc., 167 F.3d 146, 152 (3d Cir. 1999). "[A]dmissibility under Rule 702 is governed by Rule 104(a), which requires the judge to conduct preliminary factfinding, to make 'a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid,' and thus enables the judge to exclude evidence presented in plaintiff's prima facie case." Paoli II, 35 F.3d at 743 (quoting Daubert, 509 U.S. at 592-93).

To establish a prima facie case, Plaintiffs must show that harmful levels of carbon monoxide entered the truck's passenger compartment as a result of defects in the condition of the truck; that they inhaled the carbon monoxide at harmful levels for a sufficient period of

time as to cause permanent brain injury; that they have suffered injury; and that carbon monoxide accumulating in the truck's cab is the cause of the injury. See Heller, 167 F.3d at 153. It is also clear that to establish a prima facie case Plaintiffs must present admissible expert opinion testimony because no measurements of carbon monoxide levels in the vehicle or in Plaintiffs' blood were made during or immediately after their trip.

Plaintiffs premise their prima facie case on the opinions of Mr. Meinschein, Mr. Cocciardi, Dr. Jeffreys, and Dr. Driscoll. Mr. Meinschein, a former automobile mechanic and a registered professional engineer in New Jersey and Connecticut with a Bachelor's Degree in Mechanical Engineering, opines that there were pathways by which vehicle emissions could have passed into to the truck's passenger compartment. Mr. Cocciardi, although conceding that his testing of the vehicle over a prolonged period did not produce harmful levels of carbon monoxide in the vehicle cab, opines that the truck's emissions included carbon monoxide, there were pathways for exposure to carbon monoxide, there was potential for carbon monoxide levels in the truck's cab and box to increase during the road operation by approximately 50%, and that an overexposure to carbon monoxide during the trip "is apparent." (Cocciardi Report, at 19-20.) Dr. Jeffreys opines that Mr. Buzzerd suffered from an encephalopathy and that Ms. Courtney suffered changes in her personality and behavior secondary to exposure to carbon monoxide that he attributed to the trip based on information Plaintiffs gave him more than one year after the incident. Finally, Dr. Driscoll

opines that Plaintiffs suffered carbon monoxide poisoning during the trip based on the sequence of events reported to him and the data collected during examinations he conducted more than one year after the incident.

B. Meinschein's Opinions

Mr. Meinschein, a former automobile mechanic who owned and operated a service station, lists on his curriculum vitae as pertinent experience the following:

> Automotive systems failure analysis, product failure/liability and defect analysis, vehicle examinations, improper repair procedures, seat belt/air bag restraints, ABS brake failures, vehicle fire cause & origin investigation, NHTSA recalls, hydraulic lifts & jacks, machine design, BOCA & New York City building codes, residential & commercial construction, HVAC Failures, slips/trips/falls, stairways/ramps/handrails.

(C.V. for George H. Meinschein, P.E., Ex. No. 2 to Meinschein Dep.)

Mr. Meinschein conducted visual examinations of the truck on September 9, 2005, and September 12, 2007.[6] (Meinschein Report at 2, Ex. No. 3 to Meinschein Dep.) Meinschein observed "evidence of exhaust leaks at the connection between the muffler and the front pipes," and a broken hanger at the rear of the exhaust system. (Id.) He also noticed that "[t]he rear-most bolt for holding the left side exhaust manifold to the cylinder head was broken." (Id.) These observations supported his conclusion that there were leaks in the exhaust system. (Id. at 3.)

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[6] There is no dispute that the condition of the vehicle as it existed during Plaintiffs' trip was preserved intact.

Meinschein also observed an opening in the left side of the firewall, near a wiring harness, where it passed from the engine compartment to the passenger cabin. He noticed that a trim screw in the right door sill was missing, presenting "a hole from the passenger cab to the underside of the cab floor." (Id. at 2.) He further noticed that a "weather strip seal at the rear of the hood was distorted in the area directly adjacent to the cab's fresh air inlet opening." (Id.) These observations supported his conclusion that there were "multiple paths for exhaust gases to flow into the passenger cabin . . . ." (Id. at 3.)

Finally, Mr. Meinschein stated that, based upon his operation of the vehicle on the road during both inspections, an "engine miss" was present on September 9, 2005, but not on September 12, 2007. (Id.) He also stated that "[t]he left side exhaust manifold was leaking audibly when the truck was started on September 12, 2007." (Id.) Observing that the "service engine soon" lamp was illuminated throughout his examinations of the vehicle, he asserted that "the engine's computerized control system . . . recognized a defect in the system." (Id. at 3.) He further stated that "[d]efects in the computerized engine controls typically result in poor engine performance and excessive exhaust emissions." (Id. at 3.)

Mr. Meinschein's report states that emissions testing was conducted by Cocciardi & Associates during the September 12, 2007 vehicle inspection. Mr. Meinschein claims that the Cocciardi testing "yielded valuable information," but does not explain what valuable information was obtained.

The testing conducted by Cocciardi over a prolonged period of time never yielded levels of carbon monoxide in the cab that exceeded applicable federal standards. Air samples taken near the fresh air inlet did not show elevated amounts of carbon monoxide, discounting the alleged defect in that part of the vehicle as an exposure source. Moreover, emission samples taken from the exhaust outlet yielded carbon monoxide levels substantially below emission standards for carbon monoxide for that type of truck, contrary to Mr. Meinschein's opinion that the poor performing engine would yield higher levels of carbon monoxide.

Mr. Meinschein discounts the test results by asserting that "[r]unning the engine at a high idle under no load typically produces very little emissions compared to running the engine at highway speeds under load." (Meinschein Report, at 3.) He concludes that "the exhaust emission test results gathered on September 12th and 13th of 2007 understate the values that would have existed during the . . . Florida to Pennsylvania trip."[7] (Id.) Based

[7] Carbon monoxide testing conducted on behalf of the Defendants in February of 2008 addressed the assertion that emission levels detected during the Cocciardi testing understated the levels that would have existed while the vehicle was being driven from Florida to Pennsylvania under load. In this regard, the defense expert loaded the truck with approximately 2,400 pounds of material and drove it under highway conditions for approximately five hours. The peak levels of carbon monoxide in the cab of the truck over the five hour period did not exceed 2 parts per million, and the time weighted average for the entire trip was .1 parts per million. Both the maximum level observed and the time weighted average are substantially below federal standards for carbon monoxide in ambient air.

upon his observations and experience, Mr. Meinschein, within a reasonable degree of engineering probability and scientific certainty, opined:

> 1. The subject 1993 GMC Top Kick truck contains exhaust system leaks, multiple paths for exhaust gases to flow into the passenger cabin, and a poorly performing engine.
>
> 2. The conditions that are consistent with the presence of carbon monoxide in the passenger compartment while the vehicle was being driven on a long trip at highway speeds exist in the subject 1993 GMC Top Kick Truck.
>
> 3. The continuous illumination of the Service Engine Soon lamp in the subject truck indicates a defect in the operation of the computerized engine controls system.
>
> 4. The exhaust emissions test results gathered on September 12th and 13th of 2007 understate the values that would have existed during the . . . trip.

(Meinschein Report, at 4.)

In assailing Mr. Meinschein's opinions, Defendants contest his qualifications and methodology, as well as the relevance of his opinions. Each of the elements of admissibility will be addressed.

1. Qualifications

Our Court of Appeals has "eschewed imposing overly rigorous requirements of expertise and [has] been satisfied with more generalized qualifications." Paoli II, 35 F.3d at 741. That is, "an expert's qualifications should be assessed 'liberally,' recognizing that 'a broad range of knowledge, skills, and training qualify an expert as such.'" Thomas v. CMI Terex Corp., Civil No. 07-3597, 2009 WL 3068242 at *5 (D.N.J. Sept. 21, 2009) (quoting

Paoli II, 35 F.3d at 741).

An expert is not to be excluded from testifying "simply because [the court] does not deem the proposed expert to be the best qualified or because the proposed expert does not have the specialization that the court considers most appropriate." Holbrook v. Lykes, Bros. S.S. Co., 80 F.3d 777, 782 (3d Cir. 1996). On the other hand, "'[t]he issue with regard to expert testimony is not the qualifications of a witness in the abstract, but whether those qualifications provide a foundation for a witness to answer a specific question.'" Rose v. Truck Centers, Inc., 611 F.Supp. 2d 745, 749 (N.D. Ohio 2009) (quoting Berry v. City of Detroit, 25 F.3d 1342, 1531 (6th Cir. 1994)). Stated otherwise, the expert's credentials must be assessed in the context of the issue on which the proponent of the expert testimony carries the burden of proof.

In this case, Mr. Meinschein is well qualified to testify about the maintenance and integrity of an automobile emissions system. He is also qualified to testify that certain defective conditions in an automobile provide a possible pathway by which vehicle emissions may be transmitted to the occupant cabin of the vehicle. In this regard, his background as a certified master auto technician coupled with his years of experience as an automobile mechanic afford an ample foundation of technical and specialized knowledge for the expression of opinions related to vehicle condition and engine performance.

Thus, at least as Plaintiffs have framed the subject matter of Mr. Meinschein's

testimony – how exhaust fumes could have entered the passenger compartment (Pls.' Br. Opp'n Defs.' Mot. Excld., Dkt. 92 at 4) – Mr. Meinschein indeed possesses the requisite qualifications to meet the admissibility standard of Federal Rule of Evidence 702. But the issue on which Plaintiffs carry the burden of proof is not whether there were possible pathways by which emissions could enter the passenger compartment. Instead, the dispositive question is whether it is probable that vehicle emissions would enter the passenger compartment under operating conditions.

There is nothing in Mr. Meinschein's education, training or background that suggests any foundation to express an expert opinion that emissions would have passed through the orifices he identified while the vehicle was in motion at highway rates of speed. His deposition testimony acknowledged that the transmission of vehicle exhaust into the passenger compartment "depends on . . . the truck and the aerodynamics of the truck," (Meinschein Dep., at 77-78), but he articulated no expertise in the field of aerodynamics or air flow.

It is one thing to opine that exhaust fumes could be transmitted into the vehicle's passenger compartment. It is quite another matter to opine that toxic levels of exhaust fumes would have been transmitted to the passenger compartment under operating conditions. Viewed liberally, Mr. Meinschein's credentials do not qualify him to opine that engine emissions would have been transmitted at harmful levels to the vehicle compartment

under conditions where the vehicle was being operated at highway speeds. See Rose, 611 F.Supp. 2d at 749-50 (concluding that an ASE-certified master technician was not qualified to offer opinions on whether a motor vehicle accident was caused by a defective steering gear); Sigler v. Am. Honda Motor Co., 532 F.3d 469, 478-79 (6th Cir. 2008) (automobile mechanic not qualified to express opinion as to the speed at which plaintiff's vehicle was traveling when the accident occurred). For this reason alone, Mr. Meinschein's proffered testimony is subject to exclusion.

2. Reliability

Reflecting the absence of relevant qualifications, Mr. Meinschein has not shown a reliable methodology to support an opinion that carbon monoxide would have accumulated in the passenger compartment as a result of defective conditions in the truck attributable to negligent maintenance. Although "the standard for determining reliability 'is not that high,'" In re TMI Litigation, 193 F.3d 613, 665 (3d Cir. 1999), the proponent of expert testimony must show both that the expert's methodology as well as the application of that methodology are reliable. See Heller, 167 F.3d at 152. Our Court of Appeals has identified the following non-exclusive list of eight factors pertaining to reliability, which may or may not be relevant depending upon the case: (1) whether a method consists of a testable hypothesis; (2) whether the method has been subject to peer review; (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the

technique's operation; (5) whether the method is generally accepted; (6) the relationship of the technique to methods which have been established to be reliable; (7) the qualifications of the expert witness testifying based on the methodology; and (8) the non-judicial uses to which the method has been put. Paoli II, 35 F.3d at 742 n.8.

In this case, Mr. Meinschein did not articulate any methodology by which to assess the likelihood that vehicle emissions would have been transmitted to the passenger compartment under operating conditions. He simply observed conditions that could have served as pathways. While he claimed in his deposition that "there's been work [on air flow around a moving truck] done" that he could reference, he never did so. (Meinschein Dep,. at 78-79.) His assertion of carbon monoxide entering the vehicle cab is unadulterated and prohibited "ipse dixit." See In re TMI, 193 F.3d at 675.

Significantly, when confronted with carbon monoxide level testing conducted by Mr. Cocciardi that failed to show elevated levels of carbon monoxide under operating conditions, Mr. Meinschein baldly asserted that the test results likely "understated" levels of carbon monoxide present during plaintiffs' trip. Mr. Meinschein offered no verifiable methodology for his conclusion. Moreover, his failure to reassess his opinion in light of actual test results is "the antithesis of good science." In re TMI, 193 F.3d at 676.

Consideration of the first factor of reliability, a testable hypothesis, militates against admission of Meinschein's opinions. It is clear that the hypothesis that emissions entered

the vehicle during the Florida to Pennsylvania trip is subject to verification by testing. Indeed, Mr. Cocciardi proposed to do just that. In this case, the testing did not confirm the hypothesis, and Mr. Meinschein responded to this fact by the unsubstantiated assertion that the testing did not sufficiently approximate the conditions of the trip. All that is left then is Mr. Meinschein's bald assertion.

As defendants observe, Mr. Meinschein offered no quantification for the "understatement" of the Cocciardi test results. In Heller, our Court of Appeals held that extrapolations from known data must be based upon scientifically sound principles. Heller, 167 F. 3d at 162. In this case, as in Heller, Mr. Meinschein's opinion of an un-quantified "understatement" is based on speculation, and is not the product of a reliable methodology.[8]

3. Fit

In the end, Mr. Meinschein can only offer an opinion that he "observed conditions that would be consistent with the presence of carbon monoxide in the passenger compartment . . . ." (Meinschein Report, at 3.) But the issue for the jury is not whether vehicle emissions could accumulate in the cab, but whether it is likely that they did. And Mr. Meinschein offers nothing helpful on this crucial point. Although existence of conditions that

[8] Also lacking any reliable foundation is Mr. Meinschein's assertion that a poorly performing engine would emit higher levels of carbon monoxide than an efficiently running motor, as well as his claim that an illuminated check engine light indicates a vehicle that "typically" has excessive exhaust emission. Moreover, as Defendants note, the fact of increased emissions does not mean that more carbon monoxide entered the passenger compartment. (Defs.' Reply Br., Dkt. 97 at 5 n.1.)

could allow for the passage of emissions into the cab of the truck is relevant, Plaintiffs must show more. An opinion that something is possible, even to a degree of scientific probability, is a far cry from an opinion that the theorized happening probably occurred during the incident in question. See Paoli II, 35 F.3d at 751 ("[I]f the plaintiff's . . . expert cannot form an opinion with sufficient certainty so as to make a [professional] judgment, there is nothing on the record with which a [factfinder] can make a decision with sufficient certainty so as to make a legal judgment."). Mr. Meinschein never addresses the relevant issue, and his opinion is thus subject to exclusion on that ground as well because it will not "assist the trier of fact to understand the evidence or to determine a fact in issue . . . ." Fed. R. Evid. 702(a).

C. Cocciardi's Opinions

As noted above, Mr. Cocciardi is an industrial hygienist. He devised and implemented a testing plan to determine whether carbon monoxide from vehicle emissions would enter the passenger compartment of the truck under operating conditions. The testing protocol called for the truck to run for approximately 30 hours, with air samples taken at several locations, including inside the cab, the air intake (identified at the junction of the passenger side window and the engine hood), and the vehicle exhaust system (located beneath the driver's side rear compartment box, approximately midpoint). (Cocciardi Rep., at 4.) The testing included three road trips, each with a duration of approximately 45

minutes, with samples collected and analyzed during the road trips.

The sample results were remarkable for showing that the vehicle's exhaust had carbon monoxide at levels well below the expected amounts for this type of truck. The results also were remarkable in that levels of carbon monoxide within the cab were consistent with naturally-occurring levels of that chemical compound.

Undaunted by these results, Mr. Cocciardi authored a report in which he minimized the significance of the test results because his protocol, for safety reasons, had not approximated the incident in question in terms of fuel consumption, rate of speed, load, and engine performance. He opined that carbon monoxide levels during driving events "have the potential to increase," estimating that the amount of increase may be as much as 50% based upon an assertion that a CO level of 4 ppm was observed during stationary testing and a level of 6 ppm was observed during the road trip part of the testing. (Cocciardi Rep., at 19.) Mr. Cocciardi's penultimate conclusion is that "an overexposure to CO is apparent for the Buzzerd trip. Levels of exposure could not be quantified by test, but may be medically predicted by linear regression." (Id. at 20.)

As in the case of Mr. Meinschein, Defendants assail the admissibility of Mr. Cocciardi's opinions based upon an absence of requisite qualifications, reliable methodology, and connection to the matters at issue. Each aspect of Defendants' challenge will be considered in turn.

1. Qualifications

Defendants argue that Mr. Cocciardi is not qualified because he has never worked on a carbon monoxide case, has never written any scholarly articles on the topic, and he is not a medical doctor. (Defs.' Br. Supp. Mot. Excld., Dkt. 78 at 2). Therefore, Defendants claim, he has no ability to opine on the cause of Plaintiffs' injuries. (Id.)

Plaintiffs contend that Mr. Cocciardi is an industrial hygienist[9] who has written peer review articles in the area of "exposure assessments." (Pls.' Br. Opp'n Defs.' Mot. Excld., Dkt. 89 at 7). Furthermore, Plaintiffs assert that Mr. Cocciardi has worked on multiple carbon monoxide exposure events. (Id.)

Mr. Cocciardi is qualified by education, training, and knowledge to opine on

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[9] According to the American Industrial Hygiene Association's website:

> A professional industrial hygienist is a person possessing either a baccalaureate degree in engineering, chemistry, or physics or a baccalaureate degree in a closely related biological or physical science from an accredited college or university, who also has a minimum of three years of industrial hygiene experience. A completed doctoral in a related physical, biological or medical science or in related engineering can be substituted for two years of the three-year requirement. A completed master's degree in a related physical or biological science or in related engineering can be substituted for one year of the three-year requirement.

American Industrial Hygiene Association, http://www.aiha.org/aboutaiha/Pages/WhatIsanIH.aspx (last visited Oct. 28, 2009).

causation issues in toxic tort cases of this kind. In this regard, he has written peer-reviewed articles in the area of exposure assessments. As noted above, our Court of Appeals has "eschewed imposing overly rigorous requirements of expertise and [has] been satisfied with more generalized qualifications." Paoli II, 35 F.3d at 741 (citations omitted). Furthermore, exclusion of an expert is not proper because the expert does not have the degree or training the district court believes to be the most appropriate. Id. In this case, Mr. Cocciardi has the credentials to serve as an expert witness on the question of exposure to toxic levels of carbon monoxide.

2. Reliability

As Defendants observe, there are three bases for Mr. Cocciardi's opinion that Plaintiffs had an "overexposure" to carbon monoxide: (1) the truck's internal combustion engine emitted carbon monoxide; (2) there were pathways for the vehicle's exhaust to enter the passenger compartment; and (3) Plaintiffs' reported symptoms are consistent with Mr. Cocciardi's understanding of the effects of carbon monoxide poisoning. (Defs.' Br. Supp. Mot. Excld., Dkt. 78 at 6 n.8; Cocciardi Dep., at 140-42.) Notably, no part of this syllogism depends upon the test results obtained by Mr. Cocciardi. In this regard, there is no dispute that internal combustion engines produce carbon monoxide, and it is also undisputed that no passenger compartment in a vehicle is airtight. Mr. Cocciardi dismisses the absence of empirical data that corroborates his conclusion of CO "overexposure" with the observation

that half of industrial hygiene is "qualitative analysis." (Cocciardi Dep., at 141-42.) Defendants contend that such an approach lacks any reliable methodology. Plaintiffs contend that Cocciardi's opinions are based on reliable methodology, that it was unsafe to formulate a test that replicated plaintiffs' trip from Florida to Pennsylvania, and that it was not necessary to state the precise level of carbon monoxide exposure in order to give an opinion that plaintiffs were overexposed. (Pls.' Br. Opp'n Defs.' Mot. Excld., Dkt. 89 at 8-9).

Mr. Cocciardi explained the basis for his opinion of "overexposure" as follows:

> When you have a source, then you have a route to an occupant's breathing zone and you measure some materials from that source in the occupant's breathing zone and then you have occupants who report independently of those two tests that they have symptomatology of exposures, it makes perfect sense to any professional to make an opinion that there was an exposure –there was an apparent exposure to carbon monoxide such as in the Buzzerd trip.

(Cocciardi Dep., at 138-39.)

It is one thing to draw logical inferences from facts, but quite another to make giant leaps to reach a conclusion that fits one's theory, especially where known facts make the leap improbable. One key component of Mr. Cocciardi's reasoning is that vehicle emissions made their way into the truck's cab. The testing he conducted, however, undermines this foundation of his opinion. There was only an isolated, one time reading of carbon monoxide in the cab in the range of 5.0 to 6.0 ppm. (Cocciardi Report, at 5-6.) Significantly, the

vehicle was occupied at this time, and the level of carbon monoxide in exhaled breath of a typical non-smoker is 0 to 6 ppm. Thus, it cannot be said that the source of this one-time reading of carbon monoxide was vehicle emissions, and the fact that all other readings were no greater than 1.8 ppm undercuts the premise that vehicle emissions would enter the cab at unsafe levels during normal operation.

Indeed, the levels observed during Mr. Cocciardi's testing do not support an opinion of "overexposure" to carbon monoxide. The United States Environmental Protection Agency's National Ambient Air Quality Standards designate the primary standard for carbon monoxide, which sets limits to protect public health, at 9 ppm for an average time of eight (8) hours, and 35 ppm for an average time of one (1) hour. See Environmental Protection Agency, http://www.epa.gov/air/criteria.html (last visited Oct. 29, 2009.)[10] Furthermore, Cocciardi's tests revealed that the truck emitted carbon monoxide at 2,256 ppm on average, significantly lower than 7,000 ppm "which we generally consider typical carbon monoxide

[10] Mr. Cocciardi referenced the California Air Resources Board ("CARB") standard, which sets carbon monoxide standards at 9 ppm for an average time of eight (8) hours, 20 ppm for an average time of one (1) hour, and 6 ppm for an average time of eight (8) hours in the Lake Tahoe region. See CARB, http://www.arb.ca.gov/research/aaqs/aaqs2.pdf (last visited Oct. 28, 2009). Even these more stringent limits do not support a conclusion of "overexposure" based upon the Cocciardi testing results. It should also be noted that the Occupational Safety and Health Administration's standards for carbon monoxide is 50 ppm for an eight (8) hour time average, and the National Institute for Occupational Safety and Health has established a recommended exposure limit for carbon monoxide of 35 ppm for an eight (8) hour time average. See OSHA, http://www.osha.gov/SLTC/healthguidelines/carbonmonoxide/recognition.html (last visited Oct. 28, 2009).

emission[s] of trucks to be . . . ." (Cocciardi Dep., at 163).

In short, the test results simply do not fit the hypothesis to which Mr. Cocciardi clings so tenaciously. As in the case of Mr. Meinschein, Mr. Cocciardi's approach appears to be the antithesis of good science. See In re TMI, 193 F.3d at 675 (where expert's theory was undermined by testing and the expert failed to modify or explain theory given the contradictory test results, exclusion of expert was not abuse of discretion).

Plaintiffs rely on Westley v. Ecolab, Inc., No. Civ.A.03-CV-1372, 2004 WL 1068805 (E.D. Pa. May 12, 2004), in which the court admitted the testimony of an expert whose conclusions contradicted test results. Significantly, however, and unlike this case, the contradictory test results were obtained by the defendant, and not by the plaintiff's expert. Moreover, the expert, a toxicologist, testified as to the cause of chemical burns based upon the components of the cleaning substance at issue in that case and the Material Safety Data Sheet for the substance, which warned of the possibility of chemical burns. Although the expert's opinions regarding the cause of chemical burns did not rely on any testing and the expert did not rule out any other causes of plaintiff's injuries, the court found the expert's testimony admissible under Daubert because the expert "relied on his general experience, scientific knowledge and medical and scientific reports in forming his opinion." Id. at *7. That the defendant could produce contradictory test results did not render the toxicologist's methodology unreliable, but merely presented a question for the jury. Id.

Plaintiffs' reliance on Westley is clearly misplaced. Mr. Cocciardi devised and conducted his own testing protocol, but now essentially disavows the results of the testing. A professional who repudiates his own objective methodology in favor of a qualitative assessment will be hard pressed to show that his conclusions are the product of "good science." See In re TMI, 193 F.3d at 675.

The test of admissibility is whether "the particular opinion is based on valid reasoning and reliable methodology." Heller, 167 F.3d at 153 (quoting Kannankeril v. Terminix Int'l, Inc., 128 F.3d 802, 806 (3d Cir. 1997)). "While '[t]he focus, of course, must be solely on principles and methodology, not on the conclusions that they generate,' a district court must examine the expert's conclusions in order to determine whether they could reliably follow from the facts known to the expert and the methodology used." Id. (citing Daubert, 509 U.S. at 595). Here, Mr. Cocciardi's conclusion that Plaintiffs were overexposed to carbon monoxide does not reliably flow from his testing. Indeed, in this case "there is simply too great a gap between the data and the opinion proffered," General Electric Co. v. Joiner, 522 U.S. 136, 146 (1997), to sustain its admissibility.

Nor can the opinions of Mr. Cocciardi be sustained on the basis of the Plaintiffs' reports of symptoms during their 30-hour sojourn. While Federal Rule of Evidence 703[11]

[11] Rule 703 states:

> The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or

permits experts to rely on hearsay, it must be the kind of hearsay that is reasonably relied upon in their field. Mr. Cocciardi, according to Defendants, is an industrial hygienist who lacks the training and skill to evaluate plaintiffs' hearsay statements regarding their symptoms and makes no showing that this practice is reasonably relied upon by professionals in his field. Plaintiffs counter that their statements regarding their trip and symptoms were appropriately considered by Mr. Cocciardi, their "treating physicians" agree that they suffered carbon monoxide exposure, and their symptoms are those that would be expected from carbon monoxide exposure. (Pls.' Br. Opp'n Defs.' Mot. Excld., Dkt. 89 at 13.)

The proper inquiry under Federal Rule of Evidence 703 is whether the hearsay is of a nature deemed to be reliable by experts in the appropriate field. See Paoli II, 35 F.3d at 747-48 (proper inquiry is what experts in relevant field deem to be reliable). No such showing has been made here. Moreover, Plaintiffs have not shown that an industrial hygienist is qualified to express an opinion on causation, but that is essentially what Mr.

> made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence in order for the opinion or inference to be admitted. Facts or data that are otherwise inadmissible shall not be disclosed to the jury by the proponent of the opinion or inference unless the court determines that their probative value in assisting the jury to evaluate the expert's opinion substantially outweighs their prejudicial effect.

Cocciardi purports to do.[12] He takes Plaintiffs' reported symptoms, concludes that they are consistent with carbon monoxide poisoning, and then opines that there was "overexposure" to carbon monoxide during their trip. Such an approach has not been shown by Plaintiffs to be reliable, and is rendered utterly unreliable when objective testing conducted by the expert refutes his articulated conclusion.

Mr. Cocciardi's statement that there were pathways for exhaust to enter the cab does not make it probable that exhaust fumes entered the cab at such levels that carbon monoxide poisoning occurred. Mr. Cocciardi never tested to determine whether exhaust actually was flowing through the supposed pathways into the cab. Defendants observe that he did not perform freon or tracer gas testing, an assertion to which Plaintiffs do not respond.

The pathway theory remains unsubstantiated speculation. Mr. Cocciardi testified "I can't tell you the specific pathway, but it could be the air flows have caused that increase. It could also be the movement opens and closes mechanically cracks and things of that nature. So I'm not capable to give [sic] you an opinion at this minute on the air flow characteristics during any highway transport." (Cocciardi Dep., at 172). Clearly, Mr. Cocciardi's pathway theory, on which his overexposure opinion is based, is not the product of any scientific methodology.

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[12] In Heller, the Third Circuit expressed doubt that an industrial hygienist could express an opinion as to the cause of someone's illness. Heller, 167 F.3d at 159.

The fact that carbon monoxide was found in the vehicle cab during Mr. Cocciardi's testing does not support the pathway theory. As noted above, carbon monoxide exists naturally. Mr. Cocciardi was unaware of the Center for Disease Control studies that showed levels of carbon monoxide in a non-smoker's exhaled breath of up to 6 ppm. (Cocciardi Dep., at 43-44.) The testing conducted by Mr. Cocciardi failed to account for this fact, and thus does not provide a reliable method for determining whether harmful levels of carbon monoxide accumulated in the passenger compartment.

Also compelling rejection of Mr. Cocciardi as an expert in this case is his unsubstantiated assertion that carbon monoxide levels have the potential to increase during the truck's operation on highways and under load by approximately fifty percent. There appears to be no basis in the testing results for this conclusion. Mr. Cocciardi purported to measure the difference between the highest value obtained during stationary testing and the highest value recorded during road testing to opine that levels may increase by 50% during driving events. He used 4 ppm as the maximum purportedly observed during stationary testing, and compared it to the one-time level of 6 ppm during driving, but the 4 ppm figure is nowhere recorded. (Cocciardi Dep., at 153.)

Mr. Cocciardi's claim that carbon monoxide levels have the potential to increase during operation by 50% is not the product any reliable method. His rudimentary formula compared a number with unknown origins – 4 ppm – to 6 ppm, which is one of eight

recordings made during road testing. Had he used any other result obtained during the road testing, his formula would have yielded a conclusion that there was a potential for carbon monoxide levels to drop substantially during vehicle use at highway speeds. In conclusion, there does not appear to be a sound reason for the formula that Cocciardi employed, and, thus, his opinion on carbon monoxide levels increasing in the cab while the truck is being operated at highway speeds is not supported by reliable methodology.

3. Fit

The "fit" requirement of Rule 702 mandates that expert testimony "assist the trier of fact to understand the evidence or determine a fact in issue. This condition goes primarily to relevance." In re TMI, 193 F.3d at 663 (quoting Daubert, 509 U.S. at 590-91). Additionally, Rule 702's "'helpfulness' standard requires a valid scientific[, technical, or other specialized] connection to the pertinent inquiry as a precondition to admissibility." Id.

Although Mr. Cocciardi's expert opinions may be relevant, they do not satisfy the helpfulness standard. The pertinent inquiry is whether plaintiffs were overexposed to carbon monoxide. Here, Mr. Cocciardi conducted scientific testing, then ignored his test results and concluded that plaintiffs were overexposed based upon their self-reported symptoms. The only way he gets harmful levels of carbon monoxide into the cab is the Plaintiffs' reports and the existence of potential pathways. But the existence of actual pathways is testable, and no expert has done so. It is true that Plaintiffs need not show the

precise levels of carbon monoxide present during their trip in order to prevail in this case. See Kannankeril, 128 F.3d at 809. There must, however, be other evidence of exposure. For instance, in Kannankeril there were pesticide application records available. In this case, no such evidence exists. Mr. Cocciardi asserted that levels of carbon monoxide exposure could be "medically predicted through linear regression," (Cocciardi Report, at 20), but no such analysis was presented to support his conclusion of carbon monoxide "overexposure."[13] Therefore, Mr. Cocciardi's overexposure opinion lacks a valid scientific connection to the ultimate issue, and he thus fails to satisfy the "fit" precondition of admissibility.

D. The Opinions of Drs. Jeffreys and Driscoll

The opinions of Drs. Jeffreys and Driscoll – that Plaintiffs have sustained an encephalopathy as a result of carbon monoxide exposure during their November, 2004 trip – are dependent upon Plaintiffs establishing that they were exposed to harmful levels of carbon monoxide during that journey. In this regard, there is no dispute that there are multiple causes of encephalopathy, including viral infections and sleep apnea. Plaintiffs contend that both their neurologist and neuropsychologist provide admissible opinion evidence that their chronic neurological impairments stem from the trip from Florida.

[13] The medical records do not provide any basis for Mr. Cocciardi's overexposure conclusion. Carbon monoxide levels in exhaled breath about 20 hours after the trip ended were within normal limits, and the most definitive test, a carboxyhemoglobin analysis, apparently was not conducted.

The causation opinions of the health care professionals rest almost exclusively on the temporal connection of the Plaintiffs' reported acute symptoms with their use of the truck.[14] But even Plaintiffs quote with approval a court's observation that "'temporal connection standing alone is entitled to little weight in determining causation.'" (Pls.' Br. Opp'n Defs.' Mot. Excld., Dkt. 91, at 8, quoting Curtis v. M&S Petroleum, Inc., 174 F.3d 661, 670 (5th Cir. 1999).) There must be some competent evidence of exposure of such degree and duration as to cause the chronic conditions of which Plaintiffs complain. Westberry v. Gislaved Gummi AB, 178 F.3d 257, 264 (4th Cir. 1999). In this case, there is no competent evidence that carbon monoxide accumulated in the truck cab at levels sufficient to cause any injury, let alone permanent neurological deficits.

Plaintiffs argue that the health care professionals have an adequate foundation for their causation opinions because their reported symptoms are consistent with the effects of exposure to elevated levels of carbon monoxide. But the symptoms – nausea, fatigue, headaches, and hallucinations – have numerous causes, including viral infections, sleep deprivation, and depression.

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[14] Plaintiffs' opposition briefs observe that both healthcare professionals relied upon the exhaled breath test conducted at the Tyler Memorial Hospital emergency room. In this regard, Dr. Driscoll referenced the results as showing "elevated" levels of carbon monoxide. But Dr. Driscoll never reviewed the hospital records, instead apparently relying on Plaintiffs' characterization of the test results. (Driscoll Dep. at 15, 47-48.) Furthermore, while Defendants have presented evidence that up to 6 ppm of carbon monoxide in exhaled breath of a non-smoker is not abnormal, Plaintiffs have failed to present any countervailing evidence to make their doctors' reliance upon this evidence reasonable.

Furthermore, the critical inquiry here pertains to the chronic symptoms of encephalopathy, and there is no dispute that there are multiple causes of encephalopathy. The health care professionals failed to provide rational explanations for ruling out other potential causes of Plaintiffs' neurologic impairments. "'A differential diagnosis that fails to take serious account of other potential causes may be so lacking that it cannot provide a reliable basis for an opinion on causation.'" Heck v. City of Lake Havasu, No. Civ. A. 04-1810, 2006 WL 2460917, at *11 (D. Ariz. Aug. 24, 2006.) In Heck, the court excluded testimony that carbon monoxide poisoning was the cause of death because the physician's differential diagnosis failed to take into account other alternative possible causes and was inconsistent with other objective evidence. Likewise here, Plaintiffs' healthcare experts failed to give adequate consideration to alternative causes of Plaintiffs' purported cognitive, behavioral and personality changes, such as Mr. Buzzerd's diagnosed sleep apnea and Ms. Courtney's diagnosed depression, and completely discounted the objective evidence that ruled out carbon monoxide as a causative factor, such as the MRI, EEG, and CT Scan results.

Undoubtedly, the healthcare professionals in this case are hampered in their ability to perform a proper differential diagnosis by the absence of objective testing to confirm their causation hypothesis, such as carboxyhemoglobin results. But the uncertainty caused by the absence of objective testing is not to be borne by Defendants. Moreover, Plaintiffs

cannot reconcile the causation opinions of their doctors with the Cocciardi test results, which failed to show accumulation of harmful levels of carbon monoxide in the cab under operating conditions. Indeed, it does not appear that the doctors were even told of the Cocciardi test results. (Jeffrey Dep., at 73-74; Driscoll Dep. at 103.) Unlike Kannankeril, where the physician was presented with pesticide application records as evidence of substantial exposure, the doctors in this case have not been presented with any evidence of exposure to harmful levels of carbon monoxide.

"[I]t is . . . within the court's province to ensure that . . . a medical expert's ultimate conclusion on causation 'fits' with the data alleged to support it." Heller, 167 F.3d at 158. In this case, the healthcare professionals' opinions on causation do not reliably flow from the data collected by Mr. Cocciardi. Nor do they reliably flow from any objective medical procedures or tests. Under these circumstances, the doctors' opinions on causation of chronic neurologic impairments are not admissible.

III. CONCLUSION

The key issue in this case is whether Plaintiffs were exposed to harmful levels of carbon monoxide during their move from Florida to Pennsylvania. Testing did not corroborate such a conclusion, and Plaintiffs failed to offer any expert opinion based upon a reliable methodology to support their claim that permanent neurological problems were triggered by exposure to carbon monoxide during their trip from Florida. Accordingly, the

motions to exclude Plaintiffs' experts from testifying on causation will be granted.

By Order dated September 30, 2009, this Court had denied, without prejudice, Defendants' summary judgment motion because, assuming the admissibility of Plaintiffs' expert witness opinions, there were genuine disputes of facts material to the causation issue. (Dkt. 115.) Because that assumption is no longer valid, there is no evidentiary foundation for a causation conclusion in Plaintiffs' favor. That is, Plaintiffs are unable to substantiate a prima facie case against the remaining Defendants. Accordingly, it is appropriate to have the Clerk of Court enter judgment in Defendants' favor. See Fabrizi v. Rexall Sundown, Inc., No. Civ. A. 01-289, 2004 WL 1202984, at *12 (W.D. Pa. June 2, 2004) (Report and Recommendation adopted June 24, 2004, granting judgment as a matter of law where, as here, Daubert motion challenging causation opinion was granted and court had previously denied, without prejudice, a summary judgment motion pending resolution of Daubert motion, as "requiring the Defendant to renew its request for summary judgment would be a matter of mere formality"). An appropriate Order follows.

s/ Thomas I. Vanaskie
Thomas I. Vanaskie
United States District Judge

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF PENNSYLVANIA

THOMAS BUZZERD and KRISTI COURTNEY, Plaintiffs	:	CIVIL ACTION NO. 3:CV-06-0981
v.	:	(VANASKIE, District Judge)
FLAGSHIP CARWASH OF PORT ST. LUCIE, INC.; U-HAUL CO. OF FLORIDA; and U-HAUL CO. OF ARIZONA, Defendants	:	

ORDER

NOW THIS 29th DAY OF OCTOBER, 2009, for the reasons set forth in the foregoing Memorandum, IT IS HEREBY ORDERED THAT:

1. Defendants' Motions to Exclude Plaintiffs' Experts (Dkt. 74, Dkt. 77, Dkt. 80, Dkt. 83) are GRANTED.

2. The Clerk of Court shall enter judgment in favor of Defendants, and mark this matter CLOSED.

s/ Thomas I. Vanaskie
Thomas I. Vanaskie
United States District Judge